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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

END920030002US1 (18560)

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on June 8, 2006

Signature _____

Typed or printed name Leopold Presser

Application Number

10/715,689

Filed

November 18, 2003

First Named Inventor

Timothy C. Krywanczyk, et al.

Art Unit

2814

Examiner

Steven H. Rao

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)☒ attorney or agent of record.
Registration number 19,827☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 _____

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Telephone number

June 8, 2006

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☒ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Timothy C. Krywanczyk, et al.

Examiner: Steven H. Rao

Serial No.: 10/715,689

Art Unit: 2814

Filed: November 18, 2003

Docket: END920030002US1 (18560)

For: ULTRAVIOLET ENERGY
CURABLE TAPE AND METHOD
OF MAKING A SEMICONDUCTOR
CHIP USING TAPE

Dated: June 8, 2006

Confirmation No.: 4803

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REASONS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

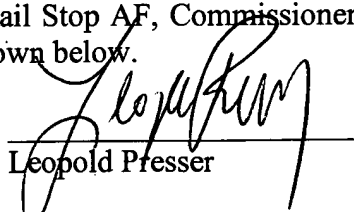
These arguments are being submitted in support of Appellant's Pre-Appeal Brief Request for Review.

Claims 1-9, 11, 12, 14, 16-19 and 30-35 are pending in this application. In an Office Action dated March 29, 2006, the Examiner issued a final rejection of all of these claims under 35 U.S.C. 102 as being fully anticipated by PCT patent application no. 92/15651 (Moon). In this application, Claims 1, 4, 7, 10 and 14 are independent claims. Claims 3, 12 and 16-18 are dependent from Claim 1, and claims 6 and 13 are dependent from Claim 4. Also, Claim 9 is dependent from Claim 7, Claim 11 is dependent from Claim 10, and Claim 15 is dependent from Claim 14.

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

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Dated: June 8, 2006


Leopold Presser

In this application, Claims 1, 11 and 34 are independent claims. Claims 2-9 and 30-33 are dependent from Claim 1. Claims 12, 14 and 16-19 are dependent from Claim 11, and Claim 35 is dependent from Claim 34.

I. Clear Error

The rejection of the claims is improper because Moon does not disclose the principal of providing the tape with any light emitting material that starts to emit light when the tape becomes substantially fully cured, as described in independent Claims 1, 11 and 34.

II. Discussion

A. This Invention

The present invention provides a UV curable tape that includes a material that starts to emit light, or light of a different color, when the tape become substantially fully cured. This feature is very useful because it makes it easy to ensure that, when the tape is used, it is at least substantially fully cured before being removed. In particular, this is achieved by simply waiting until the appropriate light or color change occurs, indicating that the tape is substantially fully cured, before removing the tape.

Waiting to remove the tape until it is substantially fully cured is, in turn, helpful because this reduces, or substantially eliminates, the amount of tape residue left behind when the tape is removed.

In the specific example discussed in the specification, when the tape is used with a semiconductor wafer, the tape can be removed without leaving any significant residue. This reduces the cost of the semiconductor fabrication process, and reduces the length of time needed for that process.

B. The Prior Art

Moon, the only reference relied on by the Examiner to reject the claims, discloses a process in which light is used to polymerize a material. This material may include fillers, tackifiers, dyes, pigments and viscosity adjusting agents. More specifically, the Moon procedure is used to polymerize a monomeric mixture of partially prepolymerized syrup. A two-step process is used to polymerize the material.

With one embodiment, in the first step, the monomeric mixture or syrup is irradiated with electromagnetic radiation of from 280 to 500 nanometer wavelength and from .01 to 20 mW/cm² average light intensity to effect conversion of the monomeric mixture or syrup to an acrylic copolymer. After this, in the second step, the acrylic copolymer is irradiated with electromagnetic radiation of from 280 to 500 nm wavelength and having an average light intensity of greater than 20 mW/cm² to at least substantially complete the photopolymerization reaction of the acrylic copolymer.

C. Differences between the Claims and the prior art.

As mentioned above, Moon does not teach the principle of providing the tape with any light emitting material that starts to emit light when the tape become substantially fully cured, as described in independent Claims 1, 11 and 34.

After carefully studying the prosecution history of this application, it appears that there are two main issues: (1) should the Examiner take into consideration the feature that the tape includes material which starts to emit light of a first type when the tape becomes substantially cured; and (2) if so, does Moon disclose this feature (Office Action of March 8, 2006, page 3, lines 4-7).

The Examiner argues that this feature should not be taken into account because it is a product-by-process limitation, and, even if it is considered, Moon discloses this feature.

Applicant respectfully disagrees with both of the Examiner's contentions.

With respect to the first of these issues, it may be helpful to note that Applicants are not claiming a cured tape, but instead are claiming a curable tape. Moreover, Applicants are not claiming any process for forming a tape, curable or cured. Instead, Applicants are claiming a curable tape that is provided with a feature that functions in a specified manner –material which starts to emit optical light of a first type – under specified conditions - when the tape becomes substantially cured. This claim limitation is no more of a product-by-process limitation than any other claim limitation that describes a specific feature that functions in a specified manner under specified conditions.

Claims 1, 11, and 34, set forth specific structural elements and describe how those elements function together to achieve the desired result. In particular, Claim 1, which is directed to a UV energy curable tape, describes, among other features, a support layer, a UV energy curable

oligomer, and a material that starts to emit optical light of a first type when the tape becomes substantially fully cured.

Claim 11 is also directed to a UV energy curable tape and positively sets forth a support layer including a material which starts to emit optical light of a first type when said tape becomes substantially fully cured. New Claim 34 describes the feature that a given amount of UV energy is needed to substantially fully cure the tape, and that this same defined amount of UV energy causes a given material in the tape to begin to emit light of a given type, whereby that given material provides a visible indication that the tape is substantially fully cured.

These are positive, structural features, not product-by-process limitations, which describe how the elements of the invention work and how the inventive results are achieved. Thus, the feature that the material starts to emit light of a first type when the tape becomes substantially fully cured, should be taken into account when determining the patentability of the claims.

In the final rejection, the Examiner argues that “In order to be given patentable weight, a functional recitation must be expressed as a ‘means’ for performing the specified function, as set forth in 35 USC Section 112, 6th paragraph (Office Action of March 8, 2006, page 3, lines 11-13).

Applicants respectfully disagree. 35 USC 112, 6th paragraph allows a claim element to be described as a means plus function, but does not require that a functional recitation be described in this way.

Furthermore, it is the above-discussed feature that patentably distinguishes the claims over the prior art.

What is missing from Moon is the matching of the light emitting material with the degree of curing of the tape.

Moon simply does not teach the principle of providing the tape with any light emitting material designed to start emitting light when the tape becomes substantially fully cured.

On this issue, the Examiner cites Moon, page 7, lines 18-21, which disclose that the tape may be provided with several materials including a dye. The present invention is much more than simply providing the tape with, for example, a dye. Instead, what is important is that the light emitting material is designed so that it functions in a particular way under specific conditions – that is, the material starts to emit light of a first type when the tape becomes substantially cured. The use of any dye for this purpose under these conditions is not disclosed in or suggested by Moon.

Also, on this point, the Examiner cites a portion of the present application and argues that Moon's description of UV dyes/pigments used for the same purpose under similar circumstances will produce the present invention.

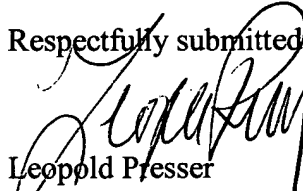
Applicants respectfully submit, though, that Moon does not disclose the use of a dye for the same purpose for which they are used in the present invention – to provide a visual indication that the tape has become substantially fully cured. This teaching is simply absent from Moon.

III. Conclusion

In light of the above-discussed differences between Claims 1, 11 and 34 and Moon, it cannot be said that any of Claims 1, 11 or 34 is anticipated by Moon. Moreover, because these differences are also not shown in or suggested by any of the prior art, these Claims 1, 11 and 34 patentably distinguish over the prior art and are allowable. Claims 2-9 and 30-33 are dependent from, and are allowable with, Claim 1. Similarly, Claims 12, 14 and 16-19 are dependent from Claim 11 and are allowable therewith; and Claim 35 is dependent from, and is allowable with, Claim 34.

Accordingly, the rejection of Claims 1-9, 11, 12, 14, 16-19 and 30-33 under 35 U.S.C. 102 as being fully anticipated by Moon, is not proper, and the panel is requested to ask the Examiner to withdraw this rejection. If the panel believes that a telephone conference with Applicant's Attorneys would be advantageous to the disposition of this case, the panel is requested to telephone the undersigned.

Respectfully submitted,


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